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THE LANGUAGE OF HEALTH PROMOTION
IN BRITISH AND RUSSIAN DIGITAL MEDIA: A COMPARATIVE STUDY

Anna O. Stebletsova

N.N. Burdenko Voronezh State Medical University, Voronezh, Russia

Irina I. Torubarova

N.N. Burdenko Voronezh State Medical University, Voronezh, Russia

Tanya Linaker

King's College London, London, United Kingdom

Abstract. The research explores the language of health promotion used in *Health matters* and *Tak zdorovo* – the national healthcare websites of the UK and Russia. The objective is to assess readability of the British and Russian texts as well as to reveal language properties and cultural implications of health promotion in national digital media. The comparative design of the study involves qualitative (contextual and interpretative) and quantitative (Compleat Lexical Tutor v.8.5 and Flesch-Kincaid grade) methods. The topic distribution results show that *physical activity*, *healthy eating and weight control*, *tobacco smoking*, *alcohol dependence*, *mental health* are raised in both cultures, however, the British corpus puts more emphasis on mental health issues compared to the Russian one. There are differences in 'positive' vs 'negative' approach in covering alcohol consumption issues. The findings on readability reveal higher rates of lexical density and lexical variety in the Russian corpus in comparison to the British one. However, the overall lexical coverage and readability index in the British (K-3) and Russian corpora (SIS – 8.68) are equally low, which means that the language of health promotion in both cultures is easy to understand. The Russian language of advice demonstrates frequent use of imperatives. The British corpus employs less categorical recommendation forms including modal verbs, create partnering communication styles and demonstrate a higher use of visual forms of health promotion. The findings revealing differences in rhetoric strategies (rational reasoning in British digital media vs emotional reasoning in Russian digital media) can be attributed to national and cultural implications.

Key words: language of health promotion, national digital media, readability, topic distribution, advice, rhetorical strategies, cultural implications.

ЯЗЫК ЗДОРОВОГО ОБРАЗА ЖИЗНИ
В БРИТАНСКИХ И РОССИЙСКИХ ЦИФРОВЫХ СМИ:
СОПОСТАВИТЕЛЬНОЕ ИССЛЕДОВАНИЕ

Анна Олеговна Стеблецова

Воронежский государственный медицинский университет им. Н.Н. Бурденко, г. Воронеж, Россия

Ирина Ивановна Торубарова

Воронежский государственный медицинский университет им. Н.Н. Бурденко, г. Воронеж, Россия

Таня Линакер

Королевский колледж Лондона, г. Лондон, Соединенное Королевство

Аннотация. Настоящая работа посвящена изучению языка здорового образа жизни на материале порталов *Health matters* и *Так здорово* министерств здравоохранения Великобритании и России. Цель исследования заключается в определении читабельности британских и российских текстов, выявлении языковых и культурных особенностей пропаганды здорового образа жизни в национальных цифровых СМИ. Сопоставительный анализ текстов включал качественные (контекстуальные и интерпретативные) методики, а также сопровождался статистической обработкой данных (Compleat Lexical Tutor v.8.5 и индекс Флэша-Кинкейда). Результаты тематической дистрибуции показали, что темы *физическая активность, здоровое питание и контроль веса, табакокурение, алкогольная зависимость, душевное здоровье* затрагиваются в обеих культурах. Пропорциональный вес темы *душевное здоровье* значительно выше в британском корпусе, чем в русском. Отмечена национальная специфика в использовании «позитивного» / «негативного» воздействия на аудиторию при освещении вопросов потребления алкоголя. Результаты анализа читабельности свидетельствуют, что при более высоких показателях лексической плотности и лексического разнообразия в русском корпусе, средние индексы лексической сложности в обоих корпусах невысоки (К-3 в британском корпусе и SIS – 8.68 в русском корпусе), что означает высокую доступность текстов для понимания. Специфика русскоязычных текстов в жанре совета проявилась в частотности императивов. В британском корпусе обнаружено доминирование менее категоричных способов выражения рекомендаций с помощью модальных глаголов, а также использование инфографики как средства визуального воздействия на аудиторию. Обнаруженные различия в использовании риторических стратегий (рациональное убеждение в британских цифровых СМИ *vs* эмоциональное убеждение в российских цифровых СМИ) может быть обусловлено национально-культурными особенностями. Вклад авторов. А.О. Стеблецовой разработана общая концепция и методология исследования, проведена аналитическая обработка результатов; И.И. Торубаровой выполнен отбор материала для анализа, его статистическая обработка; Т. Линакер интерпретированы результаты проведенного коллективного исследования.

Ключевые слова: язык здорового образа жизни, национальные цифровые СМИ, читабельность, тематическая дистрибуция, совет, риторические стратегии, культурные особенности.

Introduction

Health promotion as 'the process of enabling people to increase control over, and to improve their health' [Health Promotion Glossary, 1998, p. 11] is defined in the Ottawa Charter of 1986, the first internationally adopted health promotion document. One of the basic health promotion strategies included in the charter advocates for the factors improving health. The document confirms that language is one of the most powerful advocating means of health promotion with modern digital media providing a global channel for dissemination of health knowledge [Health Promotion Glossary, 1998].

Grounded in public health studies, health promotion is regarded as part of primary care, which mainly involves general practitioners and nurses. Several studies examining health promotion discourse in different ethnocultural settings [Havelock, Schofield, Tapsfield, 1994; Ashcroft, 2015; Fry, 2020; Kubheka, Carter, Mwaura, 2020] demonstrate the correlation between respectful management of health promotion [Maijala, Tossavainen, Turunen, 2015] delivered by primary care givers and improved health outcomes for the patients.

Alongside the public health approach to promoting healthy behaviours, there is growing attention to the language of health promotion coming from medical communities [Levinson, Lesser, Epstein, 2010; Vermeir et al., 2015; Dickinson et al., 2017]. Medical practitioners highlight the language impact on successful doctor-patient communication and its role in disseminating the knowledge of healthy life style [Srivastava, 2019]. They call for clear language recommendations to avoid discrimination, stigmatization and judgment while talking about patient conditions to make alternative emphasis

on positive motivation and freedom to choose healthy lifestyle options leading to better health outcomes. This campaign under the slogans 'Language matters', 'Words matter' has resulted in a number of consensus reports and statements comprising guiding principles for health communication and healthy behaviour promotion [National Institutes..., 2016; Language Matters..., 2018; Banasiak et al., 2020] as well as practical advice on word choice in particular medical fields, i.e. psychology, psychiatry [Lilienfeld et al., 2015**]**, and diabetes care [Dickinson et al., 2017; Cooper et al., 2018**]**. For health professionals the recommended vocabulary is based on empathy and understanding, e.g. '*it sounds as though your diabetes is really hard to manage at the moment*', encouragement and collaboration, e.g. '*I can see the effort you're putting in, keep up the great work*', '*let me talk you through the different medications and then see what you think would suit you best*' [Language Matters..., 2018, p. 9].

Implementing language practices in healthcare has become an international trend reflected in research [Lilienfeld et al., 2015; Mikels et al., 2016; Liu, Mikels, Stine-Morrow, 2021; Dolgova, Plisov, 2021]. Language barriers in healthcare have been discussed recently in Russian professional and academic domains. As a result, the Russian Ministry of Health has developed the national guidance on making appointments in primary care via call centres and federal digital service [Kamkin et al., 2022]. This document contains practical recommendations according to which common 'conflict provoking phrases' should be avoided. These phrases include impersonal addresses, e.g. *man*, *woman*, *girl*, *young man*, diminutive suffixes, negative responses, e.g. '*don't know*', '*can't help you*', '*no idea who told you this*', '*we don't provide this information*' showing refusal to help, responsibility avoidance and other well-known colloquial phrases including those putting the blame on the patient [Kamkin et al., 2022].

This trend has indicated that the issues of health promotion have gone far beyond public health studies. Along with the general understanding of the language impact on effective health promotion, the cognitive and communicative mechanisms of this impact have yet to be thoroughly explored.

The language of disease prevention has been the topic of investigation in a number of studies exploring the discourse of cancer prevention campaigns [Enkova, Stebletsova, 2016; Stebletsova, Karpova, Dorokhov, 2017], weight control and healthy eating programmes [Girko, Stebletsova, 2019; 2021]. This topic is significant due to the fact that health promotion in media campaigns relies heavily on the message appeal which is largely dependent on effective rhetoric and attractive visual images they employ [Stebletsova, Sternin, 2019].

Several recent studies [Buckton, Lean, Combet, 2015; Robinson, Smith, 2022; Boylan, Louie, Gill, 2012] have broadly explored the problem of public perception of health messages resulting in misunderstanding and confusion due to inappropriate language use. In the psycholinguistic experiment or 'word-association exercise' Christina H. Buckton et al. (2015) find that abundance of similar terms, e.g., '*healthy eating*', '*eating for health*', '*balanced diet*' and '*nutritional balance*' inconsistently used in popular health-related discourse, could lead to adverse effects in public perception, i.e., desensitisation and antipathy to health messages [Buckton, Lean, Combet, 2015].

Liu X et al. (2021) have approached the issue of health messages efficacy from the frame analysis perspective. The authors classify physical exercise promoting messages '*in terms of the benefits of engaging in healthy behaviors* (i.e., *gain-framed*, *GF*) or the costs of not doing so (i.e., *loss-framed*, *LF*)' and '*in terms of attaining desirable health outcomes (GF-D)… or the attainment of undesirable outcomes (LF-U)*' [Liu X et al. 2021, p. 202] and assess their comprehension by participants of the study. The results of the neurolinguistic experiment show that messages focusing on health benefits and desirable outcomes were better processed, recognized and produced a more positive affect than those focusing on health losses and undesirable health outcomes. Similar findings in [Liu, Mikels, Stine-Morrow, 2019; Mikels et al., 2016; van't Riet et al., 2010] may have practical implications for structuring information in health messages: the language of health campaigns should be focused on positive outcomes of healthy behaviours rather than on negative ones.

Today health promotion is mainly delivered through digital media, which comprises a large spectrum of Internet formats, i.e. medical institution and healthcare bodies' websites, academic and popular e-journals, disease prevention campaigns, social networking and blogs, YouTube channels and podcasts, etc. They all create and spread health-related content with digital services and devices, which determine its high accessibility and interactivity [Kreps, Neuhauser, 2010; Lupton, 2015; Shamshurin, 2018]. Digital media has become a universal tool in health promotion and education [Brooks, 2001]. World Health Organization (WHO), national medical institutions and healthcare bodies use their official websites to raise health awareness and promote healthy lifestyle creating and disseminating reliable health-related information.

While healthcare discourse in general has had a longstanding tradition of linguistic research [Shamne, Shishkina, 2017; Stepanova, 2019], the language of health promotion in digital media still needs thorough investigation. Additionally, the global health promotion defined by World Health Organization as enhancing 'people's wellbeing and reduce their health risks associated with tobacco use, alcohol consumption and physical inactivity' [Health Promotion. World Health Organization] might have national and ethnocultural implications reflected in the language. These ethnocultural implications may be associated with the readability of health-related information, i.e. the clarity of the text contributing to its better perception, and communicative impact, i.e. the power of language to support healthy behaviours. Both aspects are crucial for health promotion, they might be ethnoculturally specific and can be identified and examined by comparative analysis. Our literature review shows that these aspects have been discussed in only a few studies addressing a limited range of issues [Enkova, Stebletsova, 2016; Stebletsova, Karpova, Dorokhov, 2017; Girko, Stebletsova, 2019; 2021; Shamne, Shishkina, 2018; Ugwuegede, Eze, Okoli, 2021].

This study aims to explore the language of health promotion in the official websites of the UK and Russian governmental bodies with regard to its readability and rhetoric strategies. The specific research questions are as follows:

1. What health topics do the English and Russian texts promote and how are they distributed in each corpus?

2. What do the English and Russian health promotion texts demonstrate in terms of readability?

3. Does health promotion in the UK and Russian digital media differ if compared by the language of advice, rhetoric strategies and infographics?

Methods

Digital sources and material selection

Health promotion is the main target of the national healthcare institutions and organizations, so their official websites publish reliable content aimed at medical professionals and general public. We used Health and Social Care Department (Public health) of the UK Government (gov.uk) and Ministry of Health of the Russian Federation (minzdrav.ru) as the digital sources of health promotion material selected for this study. Both websites have specific portals – Health matters (https://www.gov.uk/government/collections/health-matters-public-health-issues) and Takzdorovo (https://www.takzdorovo.ru), which publish health-related content. The texts from these portals comprise British and Russia corpora (10 texts each) with the total word count of 42955. The texts collected during November 2022 – February 2023 represent the current health promotion discourse. The topic selection corresponds to the basic components of WHO definition of physical health: *healthy eating and weight control*, *alcohol and smoking behaviour*, *physical activity*, *proper sleep and mental wellbeing*.

Data analysis

The data analysis was based on the following parameters: lexical diversity, lexical density, lexical coverage, sentence length, passive sentence number [Torubarova, Stebletsova, 2022]. Lexical diversity and lexical density [Johansson, 2008] have proven effective to assess complexity of the text. Lexical diversity shows how many words of different roots (word families) are used in the text. Lexical density shows the proportion of content words to the total number of words [Johansson, 2008]. Lexical coverage is defined as the proportion of running words in the text familiar to the readers [Nation, 2006]. This proportion is

compared to the General Word List (see: [Batia, 1989; Nation, 2006]) and is expressed by the *frequency level* coefficients, e.g. *K-5 frequency level* means that a reader needs 5000 words to understand 95% of the text. These parameters were measured with Compleat Lexical Tutor v.8.5 software [Cobb].

To assess general readability for Russian corpus we used Flesch-Kincaid grade (FKG) which is similar to lexical coverage used for the English corpus. Flesch-Kincaid grade (FKG) was applied for a technical reason: lexical coverage can only be used for the English language while FKG was modified (FKG mod) [Ivanov, Solnyshkina, Solovyev, 2018] and used for Russian language. Nevertheless, both lexical coverage and FKG mod are equally applicable to text readability assessment. The readability assessment was performed for each text (*n* = 22 in total) of both corpora and the mean values of each parameter were calculated. The mean values were then compared and analysed.

The language of advice assessment was performed by continuous sampling of imperative patterns, modal words (verbs and adverbials) and derivates (nouns and verbs) of *recommend* word family. The average values of each corpus were then compared and analysed.

The interpretative description of stylistic and rhetoric features was based on observational and contextual analysis.

Results and discussion

1. Health topics: in-corpus distribution and cultural implications

The British and Russian health promotion texts raise similar topics, however, there are some differences in their distribution in the portals. We compared the number of the texts and the word count for each health topic to see which health issues are at the top of promotion (Table 1).

The data of British Corpus (BrC) and Russian Corpus (RuC) show that five topics – *Physical activity*, *Healthy eating and weight control*, *Tobacco smoking*, *Alcohol dependence*, *Mental health* – are raised in both cultures, while two topics – *Rough sleeping and Community approach* – are specific for the British health promotion. The five shared topics have revealed different communicative distribution.

Physical activity heads the list of health topics in the British and Russian official media, though in the UK it accounts for almost 4 times higher word count than in Russia (9453 words vs 2461 words respectively). We may suggest that for the UK culture physical activity promotion is the priority among other topics. This is confirmed by the language of concern about the decrease of physical activity of adult population, expressed by the vocabulary with negative semantics, e.g. *20% less active*, *physically inactive*, *lack of physical activity*, *physical activity 'designed out of our lives'*. BrC texts also put emphasis on association between physical activities and prevention of common non-communicable diseases (heart diseases, diabetes, cancers, dementia, depression) and show benefits of physical activity for general health and wellbeing. The largest proportion of this topic in total corpus distribution may suggest that physical activity is highly comprehensible, appeals to almost everyone and might have fast feedback as it seems easy to adopt as a healthy behaviour, for example, 'at least 150 minutes of moderate intensity physical activity each week, in bouts of 10 minutes or more' (see Table 2, British corpus texts, text 6 "Health matters: getting every adult active every day").

Table 1. **Health topic distribution**

№	Health topic	British Corpus (BrC)		Russian Corpus (RuC)	
		Texts, *n*	Words, *n*	Texts, *n*	Words, *n*
1	Physical activity	2	9 453	3	2 461
2	Healthy eating and weight control	1	3 454	2	2 271
3	Tobacco smoking	1	1 567	2	2 390
4	Alcohol dependence	2	3 974	2	1 840
5	Mental health	2	7 669	1	427
6	Rough sleeping	1	4 157	–	–
7	Community approach	1	2 374	–	–

Table 2. **British and Russian Text Corpora: titles and sources**

British corpus texts			
1	Health matters: harmful drinking and alcohol dependence. URL: https://www.gov.uk/government/publications/health-matters-harmful-drinking-and-alcohol-dependence/health-matters-harmful-drinking-and-alcohol-dependence	6	Health matters: getting every adult active every day. URL: https://www.gov.uk/government/publications/health-matters-getting-every-adult-active-every-day/health-matters-getting-every-adult-active-every-day
2	Health matters: community-centred approaches for health and wellbeing. URL: https://www.gov.uk/government/publications/health-matters-health-and-wellbeing-community-centred-approaches/health-matters-community-centred-approaches-for-health-and-wellbeing	7	Health matters: physical activity – prevention and management of long-term conditions. URL: https://www.gov.uk/government/publications/health-matters-physical-activity/health-matters-physical-activity-prevention-and-management-of-long-term-conditions
3	Health matters: midlife approaches to reduce dementia risk. URL: https://www.gov.uk/government/publications/health-matters-midlife-approaches-to-reduce-dementia-risk/health-matters-midlife-approaches-to-reduce-dementia-risk	8	Health matters: tobacco and alcohol CQUIN. URL: https://www.gov.uk/government/publications/health-matters-preventing-ill-health-from-alcohol-and-tobacco/health-matters-preventing-ill-health-from-alcohol-and-tobacco-use
4	Health matters: reducing health inequalities in mental illness. URL: https://www.gov.uk/government/publications/health-matters-reducing-health-inequalities-in-mental-illness/health-matters-reducing-health-inequalities-in-mental-illness	9	Health matters: rough sleeping. URL: https://www.gov.uk/government/publications/health-matters-rough-sleeping/health-matters-rough-sleeping
5	Health matters: obesity and the food environment. URL: https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment/health-matters-obesity-and-the-food-environment--2	10	Health matters: smoking and quitting in England. URL: https://www.gov.uk/government/publications/health-matters-smoking-and-quitting-in-england/smoking-and-quitting-in-england
Russian corpus texts			
1	Алкоголь: мифы и реальность (в виде беседы: вопрос-ответ) . URL: https://www.takzdorovo.ru/privychki/alkogol/alkogol-mify-i-realnost/	6	Питание для долголетия: продукты, которые могут продлить жизнь. URL: https://www.takzdorovo.ru/pitanie/zdorovoe-pitanie/pitanie-dlya-dolgoletiya-produkty-kotorye-mogut-prodlit-zhizn/
2	Понизить градус до нуля: как избавиться от алкогольной зависимости. URL: https://www.takzdorovo.ru/privychki/alkogol/ponizit-gradus-do-nulya-kak-izbavitsya-ot-alkogolnoy-zavisimosti/	7	Физическая активность для любого возраста. URL: https://www.takzdorovo.ru/articles/5138884/
3	Как курение влияет на организм и не только. URL: https://www.takzdorovo.ru/privychki/kurenie/kak-kurenie-vliyaet-na-organizm-i-ne-tolko/	8	Физическая активность: с чего начать? URL: https://www.takzdorovo.ru/dvizhenie/c-chego-nachat/fizicheskaya-aktivnost-s-chego-nachat/
4	Бросить – нельзя курить: ты сильнее своей привычки. URL: https://www.takzdorovo.ru/privychki/kurenie/brosit-nelzya-kurit-ty-silnee-svoey-privychki/	9	Особенности физической активности при избыточном весе и ожирении. URL: https://www.takzdorovo.ru/dvizhenie/obraz-zhizni/osobennosti-fizicheskoy-aktivnosti-pri-izbytochnom-vese-i-ozhirenii/
5	Здоровое питание: основные правила. URL: https://www.takzdorovo.ru/pitanie/zdorovoe-pitanie/zdorovoe-pitanie-osnovnye-pravila/	10	Как сохранить психическое здоровье? URL: https://www.takzdorovo.ru/profilaktika/dushevnyj-komfort/kak-sokhranit-psikhicheskoe-zdorove/

Physical activity promotion in RuC is similar in word count to healthy eating, smoking and alcohol dependence topics within the corpus. The RuC texts deliver a positive message on physical activity in Russia giving VCIOM – Sputnik (*Russian federal centre of popular opinion survey*) data on the increase of physical activity in Russia since 2018: 79% of adults are physically active, 25% of them are involved in physical activity on a regular basis (see Table 2, Russian corpus texts, text 7 "Физическая активность для любого возраста"). The language of physical activity uses vocabulary of positive semantics, e.g. *польза* (*benefit*), *воспитывать любовь к физической активности* (*develop love of physical activity)*, *прекрасный вид спорта* (*a wonderful sport*), *применимы для всех взрослых* (*good for all adults*), *улучшить координацию движений* (*to improve balance*).

The topics of *Healthy eating and weight control*, *Tobacco smoking* and *Alcohol dependence* demonstrate proportionally similar distribution in both corpora. However, there are obvious cultural differences in health promotion approaches revealed by the language. For instance, discussing alcohol consumption, BrC recommends limiting alcohol to 14 units per week, while RuC promotes an 'alcohol free' approach e.g. *самый простой и надежный способ сохранить здоровье – не пить вовсе*, which is obviously explained by different medical and social factors in British and Russian cultures. The word choice for alcohol in BrC ranges from rather neutral *alcohol dependence*, *excessive alcohol consumption*, *alcohol misuse* to more emotive *harmful drinking*. The word choice for alcohol in RuC demonstrates emotionally loaded vocabulary with negative meaning and metaphors representing alcohol as the most dangerous drug or poison, e.g. *алкоголь – наркотик и яд*. A similar approach to topic discussion is observed in Russian texts on quitting smoking, e.g. *курение – твой враг* (*tobacco smoking is your enemy*), *победить зависимость от курения* (*fight your smoking habit*), *ты сильнее своей привычки* (*you are stronger than smoking*).

Mental health demonstrates a higher proportion among other health topics in BrC being only the second to physical activity topic in word count. The topic is mainly focused on dementia, social triggers of other mental disorders and preventative care and support. Loneliness is admitted to be a major risk factor for developing mental illnesses, so it should be addressed by local healthcare authorities [Combating Loneliness..., 2016]. The comprehensive information on mental health in BrC suggests that this topic has become a priority in British healthcare discourse calling for health literacy and awareness in health practitioners and general population. On the contrary, RuC on mental health is very limited and mainly contains 'popular wisdom' recommendations on how to avoid stress. This might mean that mental health issues are still on the periphery of health promotion in Russia.

Rough sleeping and *Community approach* topics are only recorded in BrC. The possible explanation for this is outside the language domain. We can only suggest that rough sleeping is often associated with homelessness and community strategies to address these problems are areas of Health and Social Care Department responsibility, so they are included in national health promotion policy. In Russian healthcare discourse rough sleeping has hardly ever been raised in health media; homelessness, likewise, is beyond the reach of Minzdrav (Ministry of Health) health promotion policy. Certain differences in socioeconomic environment of the two countries might be the cause of differences in the national health promotion policies, thus, leading to a further research.

2. Readability assessment

Numerous studies confirm that the complexity of a written text is determined by many factors [Batia, 1989; Nation, 2006; Johansson, 2008; Lilienfeld, 2015]. Long sentences with complicated syntax, formal vocabulary, terms, passive voice, the abundance of abstract words or verbosity usually contribute to the complexity of the text, decreasing its readability and communication effect. We sought to compare the readability of the British and Russian health promotion texts, to measure their lexical diversity, lexical density, lexical coverage, sentence length, the number of passive sentences. The complete statistical datasets for each text and corpus are given in Tables 3 and 4. In order to simplify the description, the mean value of each parameter was calculated and then used for comparison and interpretation. Table 5 summarizes mean values of readability parameters of BrC and RuC.

Our findings in both corpora demonstrate similar values of *lexical density*. This value is directly associated with the amount of information conveyed by the text: 'a text with a high proportion of content words contains more information than a text with a high proportion of function words (prepositions, interjections, pronouns, conjunctions and count words)' [Johansson, 2008, p. 65]. The slightly higher lexical density in RuC can be attributed to the morphological properties of the Russian language system rather than to the amount of information its texts deliver.

The difference in *lexical diversity* values is rather significant. Our data show that lexical diversity in RuC is 1.5 times higher than in BrC (0.52 and 0.33 respectively). This means that the Russian language of health promotion uses a more varied vocabulary to represent the health topic than English. Lexical diversity in Russian health promotion seems to be significantly higher than in the British one as RuC discusses 5 topics in 10 texts compared to 7 topics in 10 texts for BrC.

Table 3. **British Text Corpus: readability assessment parameters**

Text	Title	Total word count per text, *n*	Lexical density, %	Lexical diversity, %	Lexical coverage (frequency coefficient)	Sentence count, *n*	Word count per sentence, *n*	Passive predicate, *n*	Direct imperative and modal forms *
1	Health matters: harmful drinking and alcohol dependence	2136	0,65	0,30	K-3	92	23.22	14	7
2	Health matters: community-centred approaches for health and wellbeing	2374	0,66	0,30	K-3	85	21,41	16	6
3	Health matters: midlife approaches to reduce dementia risk	2344	0,65	0,29	K-5	92	25,47	16	10
4	Health matters: reducing health inequalities in mental illness	5325	0,65	0,20	K-3	180	29,28	26	11
5	Health matters: obesity and the food environment	3454	0,65	0,28	K-4	111	30,85	15	16
6	Health matters: getting every adult active every day	3458	0,65	0,68	K-3	119	28,24	25	6
7	Health matters: physical activity – prevention and management of long-term conditions	6085	0,67	0,19	K-3	178	33,64	27	19
8	Health matters: tobacco and alcohol CQUIN	1738	0,65	0,31	K-3	65	26,32	22	14
9	Health matters: rough sleeping	4157	0,63	0,23	K-3	143	28,97	22	3
10	Health matters: smoking and quitting in England	1567	0,65	0,35	K-3	73	21,22	7	0

Note. * – this parameter refers to the language of advice and recommendation.

Table 4. **Russian Text Corpus: readability assessment parameters**

Text	Title	Total word count per text, *n*	Lexical density, %	Lexical diversity, %	Flesch-Kincaid grade index mod. (FKG – SIS)	Sentence count, *n*	Word count per sentence, *n*	Passive predi-cate, *n*	Direct impera-tive and modal forms *
1	Алкоголь: мифы и реальность (в виде беседы: вопрос-ответ)	864	0,78	0,56	8,15	58	14,9	15	2
2	Понизить градус до нуля: как избавиться от алкогольной зависимости	977	0,78	0,52	6,63	70	13,96	26	34
3	Как курение влияет на организм и не только	941	0,79	0,48	9,65	61	15,43	24	5
4	Бросить – нельзя курить: ты сильнее своей привычки	1449	0,76	0,46	6,16	118	12,28	32	17
5	Здоровое питание: основные правила	1902	0,82	0,37	9,53	121	15,72	42	44
6	Питание для долголетия: продукты, которые могут продлить жизнь	369	0,84	0,61	9,36	30	12,3	11	4
7	Физическая активность для любого возраста	1222	0,77	0,42	9,19	61	20,03	17	18
8	Физическая активность: с чего начать?	658	0,78	0,54	8,94	45	14,62	13	12
9	Особенности физической активности при избыточном весе и ожирении	581	0,77	0,54	11,3	27	21,52	4	12
10	Как сохранить психическое здоровье?	427	0,80	0,65	8,14	37	11,54	5	8

Note. * – the parameter refers to the language of advice and recommendation.

Table 5. **Readability parameters of the British and Russian health promotion texts: mean values**

Corpus	Lexical density	Lexical diversity	Lexical coverage (K) / Readability (SIS)	Total sentence count, *n*	Passive	
					Mean per corpus, *n*	per corpus, %
British	0.65	0.33	K-3	103.8	19	18.2
Russian	0.78	0.52	SIS – 8.68	62.8	18,9	30

There might be several plausible explanations for this. One of the stylistic conventions of Russian writing is repetition avoidance, which usually leads to a variety of synonyms used to refer to one and the same object or action in the text. For instance, in the English text the collocation '*physical activity*' is used 4 times per a 119-word paragraph, while in a 129-word Russian paragraph the collocation '*физическая активность (physical activity)*' is used 2 times along with the synonymic use of '*спорт (sport)*' – 2 times and '*физическая нагрузка (physical workload)*' – 1 time.

Another reason for a higher lexical diversity of the Russian health promotion seems to lie in the traditional verbosity of the Russian writing style. By verbosity here we mean excessive use of abstract words, verbal nouns, formal clichés to create formal communication key, e.g. *регулирование количества потребления, контролирование питьевого режима, развитие дефицита витаминов группы В, обеспечивает укрепление и улучшение здоровья, регулярное включение овощей в рацион, играть важную роль в снижении факторов риска, трудно переоценить,* etc. The pleonastic use of the verbs *обеспечивать (provide), способствовать (facilitate), развивать (develop)* also adds to verbosity which is confirmed by this research data of lexical diversity value.

Lexical coverage and *readability* describe perspicuity and comprehension of the text. The mean value K-3 for BrC lexical coverage means that the text audience is expected to know 3000 words from the General Word List to adequately comprehend the text. As reported, an average adult native English speaker knows approximately 20000 words [Lexical facts, 2013]; "as a rule of thumb, one year of life equals 1000 word-families up to the age of 20" [Nation, 2006, p. 60]. This research's lexical coverage results demonstrate that BrC texts must be highly comprehensive and understandable for the public.

The Flesch-Kincaid index, used for RuC readability assessment, ranks texts by the number of years of formal education covered by a potential text reader. The value of this index ranges from 1.0 (minimum readability) to 20.0 and above (approximately, PhD level). The mean value 8.68 shows very low complexity of the texts indicating their high readability. Such values mean that the text is properly comprehensible for 8th – 9th grade schoolchildren [Ivanov, Solnyshkina, Solovyev, 2018], so the readability of RuC is high and the texts should cause no difficulty in perception by the public.

Passive sentence proportion values demonstrate another significant difference between English and Russian health promotion language. The average percentage of passive in BrC is 1.64 lower than in RuC (18.2% and 30% respectively). We suppose that frequent use of the passive in Russian is linked to the formality and objectivity of the writing style. The passive in Russian health promotion is used to create a credible, reliable and competent stance, e.g.

(1) Мы привыкли к тому, что алкоголь свободно **продается** на полках продуктовых магазинов. Ему **приписывается** масса чуть ли не полезных свойств (https://www.takzdorovo.ru/privychki/alkogol/alkogol-mify-i-realnost/);

(2) К примеру, в Германии и Дании **распространен** пивной алкоголизм, во Франции – винный (https://www.takzdorovo.ru/privychki/alkogol/alkogol-mify-i-realnost/);

(3) У человека, который страдает от алкоголизма, под ударом **оказываются** практически все органы и системы организма: сердце, сосуды, поджелудочная железа и даже кровь (https://www.takzdorovo.ru/privychki/alkogol/ponizit-gradus-do-nulya-kak-izbavitsya-ot-alkogolnoy-zavisimosti/);

(4) Физическая зависимость **проявляется** невротическими, психосоматическими и вегетативными нарушениями (https://www.takzdorovo.ru/privychki/kurenie/kak-kurenie-vliyaet-na-organizm-i-ne-tolko/);

(5) У курильщиков электронных сигарет **развивается** так называемая «попкорновая» пневмония (https://www.takzdorovo.ru/privychki/kurenie/kak-kurenie-vliyaet-na-organizm-i-ne-tolko/);

(6) Пассивные курильщики... **подвержены** онкологическим заболеваниям – раку легкого, мочевого пузыря, молочной железы и другим (https://www.takzdorovo.ru/privychki/kurenie/kak-kurenie-vliyaet-na-organizm-i-ne-tolko/);

(7) Всего **насчитывается** свыше 8 млн смертей от последствий употребления табака в год (https://www.takzdorovo.ru/privychki/kurenie/brosit-nelzya-kurit-ty-silnee-svoey-privychki/);

(8) Дефицит антиоксидантов особенно **выражен** у курильщиков... (https://www.takzdorovo.ru/pitanie/zdorovoe-pitanie/zdorovoe-pitanie-osnovnye-pravila/);

(9) Ряд полезных для здоровья свойств овощей и фруктов может **быть связан** с другими компонентами... (https://www.takzdorovo.ru/pitanie/zdorovoe-pitanie/zdorovoe-pitanie-osnovnye-pravila/).

In BrC the passive is conventionally used to highlight the action rather than the actor, e.g.

(10) Local councils and health and wellbeing boards **are involved** in planning (https://www.gov.uk/government/publications/health-matters-harmful-drinking-and-alcohol-dependence/health-matters-harmful-drinking-and-alcohol-dependence);

(11) The link between physical inactivity and obesity **is well established** (https://www.gov.uk/government/publications/health-matters-getting-every-adult-active-every-day/health-matters-getting-every-adult-active-every-day);

(12) This **is supported** by a new review from the Committee on Carcinogenicity (https://www.gov.uk/government/publications/health-matters-harmful-drinking-and-alcohol-dependence/health-matters-harmful-drinking-and-alcohol-dependence);

(13) Brief advice helping the person to consider the reasons for change should **be offered** where relevant (https://www.gov.uk/government/publications/health-matters-harmful-drinking-and-alcohol-dependence/health-matters-harmful-drinking-and-alcohol-dependence).

However, this research demonstrates that Russian health promotion literature tends to employ more passive structures than English literature. At the same time, English texts often use active patterns to convey similar messages in similar contexts. This can be explained by a greater variety of passive options in Russian language: passivity in Russian can be expressed both morphologically and syntactically [Korytko, 2010]. As revealed by this study, morphological options comprise forms of reflexive verbs and passive participles (*применялись, явилось, показано, выявлены*), while syntactical means include verb constructions in the passive voice (*были обнаружены, был подсчитан* etc.)

3. The language of advice and other rhetoric strategies in health promotion

The ultimate aim of health promotion is to encourage positive changes in the audience behavior, i.e. smoking cessation, reduction in alcohol consumption, weight control etc. With regard to this, our research has explored the language of advice and recommendation, which is common for promoting healthy behavior in both British and Russian cultures. Additionally, the distinctive

feature of digital media is the use of various multimodal techniques, which combine traditional language means with audio and video channels of communication, the use of visual (graphic) formats of data presentation, e.g. infographics, which contribute to health promotion.

This part presents preliminary results on the language of advice, general observations on vocabulary and rhetoric differences, and the use of infographics. The vocabulary register peculiarities and rhetoric differences recorded in both corpora are based on descriptive interpretation of the research material.

The statistical analysis of the language of advice was based on calculation of imperative patterns (*do it*) and vocabulary with the meaning of advice / recommendation including verbs, modal verbs and nouns. The complete statistical datasets for each text and corpus are given in Tables 3 and 4. The total number of infographic items was calculated for each corpus. Table 6 demonstrates the findings presented in the total word and item count for corpus and mean values per text.

The comparison of the average data on the language of advice and recommendation shows that RuC uses the language of advice / recommendation more frequently than BrC. The contextual analysis of direct imperative patterns shows that the core grammar structure for strong advice (*do it*) is widely spread in the corpus, e.g.:

Пересмотрите свой круг общения.
Найдите тех, кто вас поддержит.
Употребляйте разнообразные продукты.
Ограничьте потребление сахаров.
Откажитесь от алкоголя.
Для бесплатного получения медпомощи при алкогольной зависимости обратитесь в государственный наркологический диспансер.

The direct and categoric language form is most likely to be determined by the author / source competence and the message benefit for the audience, thus the use of imperative here is conventional and typical for the Russian health discourse.

Direct imperative patterns are also recorded in BrC, although their communicative function differs from strong advice. The contextual analysis suggests that in BrC direct imperatives are mainly used as instructions, e.g.:

Table 6. **The language of advice / recommendation and infographics: mean values**

Corpus	Advice / recommendation (word count)			Infographics (item count)	
	total per corpus, *n*	mean, *n*	mean, %	total per corpus, *n*	mean, *n*
British	92	9.2	18,2	98	9.8
Russian	156	15.6	24,8	2	0.2

Download a complete set of references for this document.

Please visit the Campaign Resource Centre for more detailed information.

Read the Health matters edition on physical activity for more advice on embedding physical activity into everyday life.

These instructions accompanied by hyperlinks tend to refer the audience to advice rather than provide advice directly.

We also recorded imperative instructions addressed to healthcare professionals, which mainly describe measures to improve health promotion in local communities, e.g.:

Develop a whole-system approach.

Measure health and social outcomes that people say matter.

Work with members of the community in identifying and developing the skills... that contribute to health.

Our contextual search of the BrC revealed only four cases of strong advice communicated by direct imperatives, e.g. *Love your heart, stay sharp, keep connected*; *Reduce the risk of dementia* and all of them were recorded in infographics (see Figure).

The language markers of *recommendation* were found in both corpora. BrC demonstrates the domineering use of *should*, the use of *can* is limited. RuC shows a range of modal adverbials, i.e. *можно, нужно, необходимо, важно, желательно, стòит, может быть* and word forms of *recommend*, i.e. *рекомендуем*(-*ет*, -*ется*), *рекомендовано, рекомендация*(-*и*). Below are most common examples illustrating the language of recommendation (see Table 7).

RuC uses a wider range of language forms to express recommendation, most of which are explicit and addressed to the general public. The language of health recommendation in BrC is mostly limited to *should* and addressed more to healthcare professionals in local communities and NHS services than to the general public.

The type of audience determines other ***rhetorical differences*** that were observed in BrC and RuC of health promotion. English texts use mostly neutral vocabulary and a large amount of statistical data to support health promotion, e.g. *the costs of ill health*, *the scale of the problem*, *the risks factors*, *the healthy behavior steps to be taken*. The choice of such rhetoric strategies suggests the focus on rational reasoning and argumentation addressed to a professional audience. The frequent references (hyperlinks) to official health policy documents, guidelines and resources present additional evidence of the professional target audience communicating health issues further to the general public:

(14) An **e-learning training resource** on the dementia component is available for those who deliver the health checks (https://www.gov.uk/government/publications/health-matters-midlife-approaches-to-reduce-dementia-risk/health-matters-midlife-approaches-to-reduce-dementia-risk);

(15) The **Local Government Association guide for combating loneliness** recommends that councils should consider addressing this... (https://www.gov.uk/government/publications/health-matters-midlife-approaches-to-reduce-dementia-risk/health-matters-midlife-approaches-to-reduce-dementia-risk);

(16) The **Tobacco Control Plan** for England recognises the need for urgent action... (https://www.gov.uk/government/publications/health-matters-reducing-health-inequalities-in-mental-illness/health-matters-reducing-health-inequalities-in-mental-illness).

The Russian texts, on the contrary, commonly employ emotionally marked vocabulary, especially to communicate negative messages, e.g. to unmask the idea of 'harmless alcohol consumption' by the words *lie, poison, complete nonsense*:

...**Ложь** начинается с определения, что такое алкоголь,

наука говорит нам правду: алкоголь – наркотик и **яд**,

Что же касается утверждения о снятии алкоголем напряжения, то это **полный вздор**.
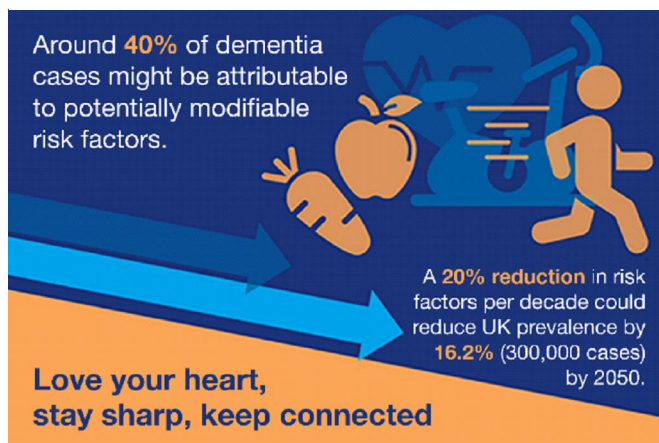
Reducing the risk of dementia

Table 7. **The language of recommendation: typical usage examples**

British Corpus	Russian Corpus	
	Modal words	*Recommend* word family
Men and women **should limit** their intake	**нужно активно двигаться** не менее 60 минут ежедневно	**ВОЗ рекомендует**
Each week, adults **should accumulate** at least 150 minutes of moderate intensity activity	**Важно найти** достойную замену курению **желательно выбирать** сорта с низким содержанием жиров	**Мы рекомендуе**м выбирать низкую или умеренную нагрузку
Treatment services **should offer** information and support to carers and family members	Грудное вскармливание **может быть продолжено** до 2-х лет	Если же не получается справиться самому, **рекомендуем** обратиться к психотерапевту
To achieve this, the following are among the measures that **should be considered**	**необходимо учитывать** общее состояние здоровья в настоящий момент	Спортом **рекомендуют** заниматься в любом возрасте
These protective factors **can help** buffer against risk factors	**можно сходить** на встречу анонимных алкоголиков в вашем городе	**Рекомендуется** использовать йодированную соль
Some **will benefit** from a brief intervention consisting of a short alcohol health risk check in a range of health and social care settings	все пациенты с ожирением **обязательно должны выполнять** минимальные рекомендации по физической активности	При ожирении **не рекомендуется** интенсивная нагрузка
The guideline **recommends** reducing the risk… by helping people to improve their diet	**стоит уделять** время упражнениям на равновесие	

A frequent rhetoric strategy to address the general audience employed by RuC is 'myth busters' text organization in which health issues are communicated as arguments against widespread ethnocultural misconceptions, like 'e-cigarettes are harmless' or 'alcohol releases radionuclide substances' (see Table 2, "Russian corpus texts", text 1 "Алкоголь: мифы и реальность"). We suggest that the choice of emotionally marked vocabulary, colloquialisms and 'myth busters' rhetoric reveal emotional reasoning in RuC of health promotion, which may have a higher communicative impact on the general audience.

The distinctive feature of British health promotion is a wide use of *infographics* with the average number of 9 items per text in the corpus. For instance, text 7 *Physical activity – prevention and management of long-term conditions* with the highest word count of 6087 containing 13 infographics; text 10 *Smoking and quitting in England* with the lowest word count of 1567 containing 11 items (see Table 4).

As a creolized text combining verbal and graphical images, health infographics provide clear presentation of facts and statistics (informative function), and easier comprehension of arguments (persuasion function). It summarizes key messages (text compression function) and has a high impacting potential. We may suggest that the British health promotion relies heavily on infographics, which has the potential for being communicatively effective.

The use of infographics in RuC, on the contrary, is sparse, which might be explained by reliance on other rhetoric strategies, by underestimation of infographic persuasive power or, in most probability, by the research material limitations.

Conclusion

The comparative analysis of the content, readability and rhetorical features of the British and Russian digital media (*Health matters* UK and *Takzdorovo* RUS) has indicated certain specifics of health promotions in both cultures.

British and Russian texts raise universal health messages *of physical activity*, *healthy eating and weight control*, *tobacco smoking*, *alcohol dependence*, *mental health*. The main differences concern in- and cross-corpus distribution and message presentation approach. Mental health proportional distribution in BrC is considerably higher than in RuC, which might be interpreted by a deeper concern for mental health and more attention to ageing population illnesses in the UK compared to Russia. The topic presentation approach in BrC can be defined as balanced: all topics are developed in a standard frame, which proves the health issue overview, social and financial challenges, the risk factors of unhealthy patterns and benefits of healthy behaviors. The topic presentation approach in RuC largely depends on the topic: physical activity is developed in a 'positive' way, stressing the benefits, while tobacco smoking and alcohol dependence are represented in a 'negative' way with the focus of the risks of unhealthy behavior.

The readability of British and Russian texts is almost equally high which suggests that the authors in both cultures make efforts to enhance the perception of health promotion messages by avoiding sophisticated terminology or complex syntax. Even though RuC has higher rates in lexical density, lexical variety and passive forms in comparison to BrC, they probably do not prevent health messages' comprehension by the target audience.

The results of advice and recommendation analysis in the British and Russian health promotion corpora reveal certain ethnocultural implications.

The language of strong advice conveyed by positive imperative forms is commonly employed by Russian health promotion. Although pragmatically categorical and direct, *do it* imperative seems to be an effective language tool that is comprehensible to the audience and typical for Russian colloquial communication. The suggestive and incentive modality forms used to communicate recommendation are numerous. Their variety is consistent with the high lexical diversity of the Russian health promotion. Emotional reasoning, colloquial vocabulary and 'down-to-earth' rhetoric seem to be intentionally applied to enhance health promotion.

The language of advice and recommendation employed in BrC is less direct and more objectivized. The communication is shaped in a partnering rather than domineering style. Addressed to the general public and healthcare professionals, the language of health promotion relies on rational reasoning and visual attractiveness to enhance health promotion in the UK.

The comparative analysis of health promotion in official UK and Russian digital media allows a discussion of ethnocultural implications underlying the language differences to be continued in further studies.

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Information About the Authors

Anna O. Stebletsova, Doctor of Sciences (Philology), Associate Professor, Head of the Department of Foreign Languages, N.N. Burdenko Voronezh State Medical University, Studencheskaya St, 10, 394036 Voronezh, Russia, annastebl@mail.ru, https://orcid.org/0000-0002-4682-4887

Irina I. Torubarova, Candidate of Sciences (Philology), Associate Professor, Department of Foreign Languages, N.N. Burdenko Voronezh State Medical University, Studencheskaya St, 10, 394036 Voronezh, Russia, torubarova69@mail.ru, https://orcid.org/0000-0002-6712-1865

Tanya Linaker, Master of Arts, Senior Fellow, Higher Education Academy, Team Leader for Slavic and Middle Eastern Languages, King's Language Centre, School of Professional and Continuing Education, King's College London, The Strand, WC2R 2LS London, United Kingdom, tanya.linaker@kcl.ac.uk, https://orcid.org/0009-0006-2139-1508

Информация об авторах

Анна Олеговна Стеблецова, доктор филологических наук, доцент, заведующая кафедрой иностранных языков, Воронежский государственный медицинский университет им. Н.Н. Бурденко, ул. Студенческая, 10, 394036 г. Воронеж, Россия, annastebl@mail.ru, https://orcid.org/0000-0002-4682-4887

Ирина Ивановна Торубарова, кандидат филологических наук, доцент кафедры иностранных языков, Воронежский государственный медицинский университет им. Н.Н. Бурденко, ул. Студенческая, 10, 394036 г. Воронеж, Россия, torubarova69@mail.ru, https://orcid.org/0000-0002-6712-1865

Таня Линакер, магистр искусств, старший научный сотрудник Академии высшего образования Великобритании, заведующая секцией славянских и ближневосточных языков, Королевский языковой центр, Школа профессионального непрерывного образования, Королевский колледж Лондона, Стрэнд, WC2R 2LS г. Лондон, Соединенное Королевство, tanya.linaker@kcl.ac.uk, https://orcid.org/0009-0006-2139-1508